

### **GRADING NOTES:**

- 1. SEE CS002 FOR ADDITIONAL NOTES.
- ALL GRADING, DRAINAGE, AND UTILITY INSTALLATION AND/OR CONSTRUCTION SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS OR LOCAL REQUIREMENTS. SHOULD A DIFFERENCE IN REQUIREMENTS OCCUR, THE STRICTER OF THE TWO REGULATIONS WILL APPLY.
- 3. GRADE ALL AREAS OTHER THAN PAVED GRADED AREAS AND BUILDINGS, INCLUDING EXCAVATED AREAS, FILLED AND TRANSITION AREAS, AND LANDSCAPED AREAS, FILLED AND TRANSITION AREAS, AND LANDSCAPED AREAS TO FINISH GRADE ELEVATIONS OR CONTOURS AS INDICATED ON DRAWINGS. FINISHED SUBGRADE SURFACE SHALL BE UNIFORM AND SMOOTH, FREE FROM ROCK, DEBRIS, OR IRREGULAR SURFACE CHANGES. FINISHED SUBGRADE SURFACE SHALL NOT BE MORE THAN 0.10 FEET ABOVE OR BELOW ESTABLISHED FINISHED SUBGRADE ELEVATION, AND ALL GROUND SURFACES SHALL VARY UNIFORMLY BETWEEN INDICATED ELEVATIONS. DITCHES SHALL WARY UNIFORMLY BETWEEN INDICATED ELEVATIONS. DITCHES SHALL BOR GRADED TO ALLOW FOR PROPER DRAINAGE WITHOUT PONDING AND IN A MANNER THAT WILL MINIMIZE EROSION POTENTIAL.
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- SITE GRADING SHALL NOT PROCEED UNTIL ALL EROSION CONTROL MEASURES HAVE BEEN INSTALLED.
- CONTRACTOR SHALL REVIEW ALL DRAINAGE CONNECTIONS TO MANHOLES AND CATCH BASINS AND INCREASE THE INLET BOX SIZES AS NECESSARY TO ACCOMMODATE THE PROPOSED INLET AND OUTLET PIPES.
- 7. ALL GRADING IS TO PROMOTE POSITIVE DRAINAGE AWAY FROM
- CURB ELEVATIONS INDICATED "BC" ARE BOTTOM OF CURB ELEVATIONS, CURB ELEVATIONS INDICATED AS "TC" ARE TOP OF CURB ELEVATIONS.
- TOP OF WALL ELEVATIONS ARE APPROXIMATE. SEE STRUCTURAL DRAWINGS FOR DETAIL.

# GRADING PLAN LEGEND MAJOR CONTOUR MINOR CONTOUR SPOT ELEVATION

TM PHASE 1 August 24th, 2021



Langan Engineering and Environmental Services, Inc.
1300 Wilson Boulevard, Suite 450 Arlington, VA 22209

T: 571.366.6800 F: 571.366.6801 www.langan.com WASHINGTON DISTRICT OF COLUMBIA

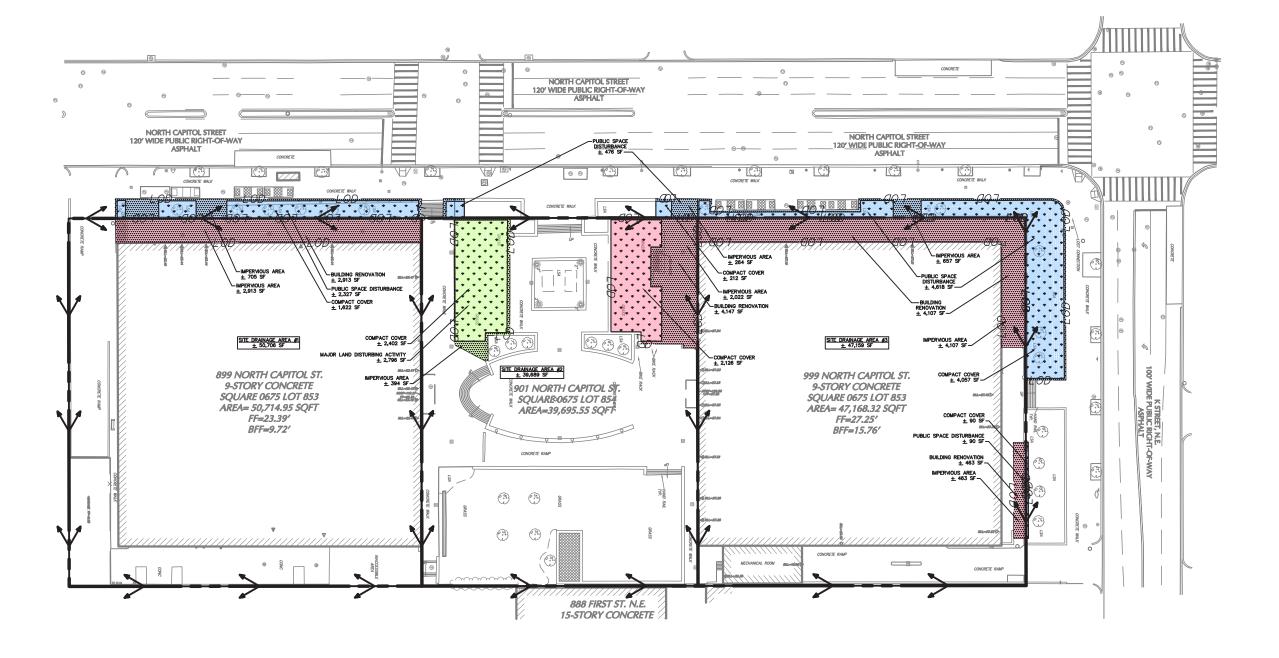
GRADING PLAN Project No. 270098601

Date 12 AUG 2021

Drawn By AAO

Checked By

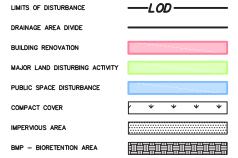
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### PRE-CONSTRUCTION LAND COVER NOTES:

- 1. SEE CS002 FOR ADDITIONAL NOTES.
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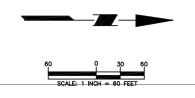
### PRE-CONSTRUCTION LAND COVER LEGEND



Pre-Construction Land Cover	1
Major Land Disturbance	Area (sf)
Compacted Cover	2,40
BMP - Bioretention	-
Impervious Cover	39
Total	2,79
Building Renovation	Area (sf)
Compacted Cover	2,12
Impervious Cover	6,59
Total	8,71
Public Right-of-Way	Area (sf)
Compacted Cover	5,89
Impervious Cover	1,62
Total	7,51











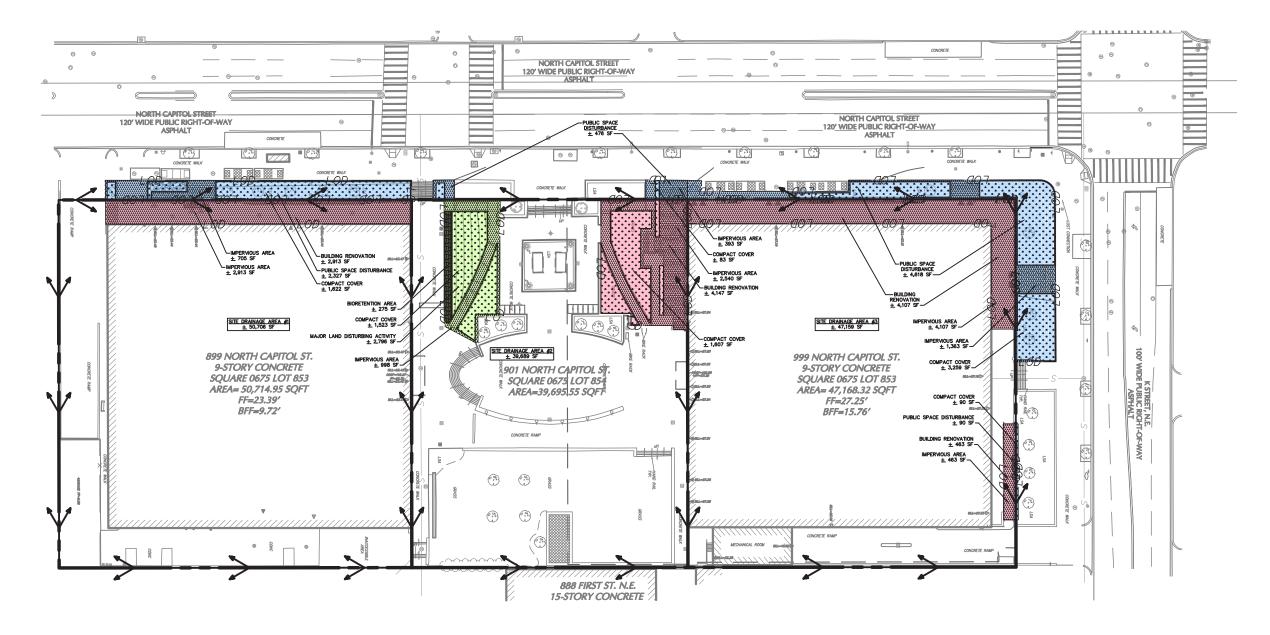


Drawing Title

	Project No.
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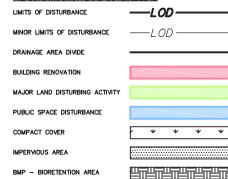
Drawing No.



## POST-CONSTRUCTION LAND COVER NOTES:

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### PRE-CONSTRUCTION LAND COVER LEGEND



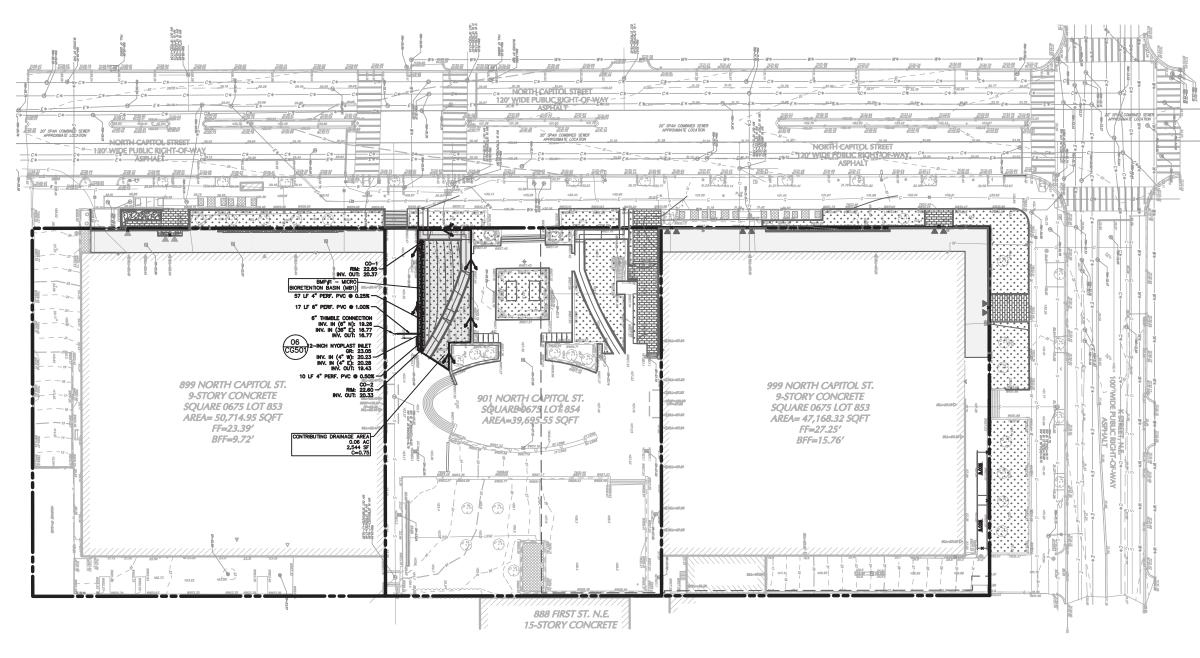
Post-Construction Land Cover Major Land Disturbance	Area
Compacted Cover	1
BMP - Bioretention	
Impervious Cover	
Total	2
Building Renovation	Area
Compacted Cover	1
Impervious Cover	7
Total	8
Public Right-of-Way	Area
Compacted Cover	5
Impervious Cover	2
Total	7











### STORMWATER MANAGEMENT PLAN NOTES:

- 1. SEE CS002 FOR ADDITIONAL NOTES.
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- 10. RUBBER GASKETS ARE REQUIRED ON PIPE FITTINGS WITHIN THE EASTERNMOST STORM SEWER CONVEYANCE SYSTEM DUE TO INCREASED HYDRAULIC GRADE LINES IN THIS AREA.
- 11. REFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR LOCATIONS OF FOUNDATION WALL DRAIN PIPES.

### STORMWATER MANAGEMENT LEGEND

BIORETENTION FACILITY NYOPLAST DRAINAGE INLET

2 62 62 62 62 62 62 62 62

### STORMWATER MANAGEMENT NARRATIVE

THIS SITE WILL UNDERCO MAJOR LAND DISTURBING ACTIVITY (MLDA) AND BUILDING RENOVATIONS. THE BUILDING RENOVATIONS, WHICH INCLUDE EXPANDING THE 899 AND 999 BUILDINGS TO THE PROPERTY UNE ON TOP OF THE UNDERGROUND GARAGES AND SITE IMPROVEMENTS IN THE PLAZA ON TOP OF THE GARAGE, WILL COST LESS THAN 50% OF THE ASSESSED VALUE OF THE BUILDINGS AND WILL NOT BE SUBJECT TO STORMWATER MANAGEMENT REQUIREMENTS.

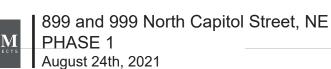
BASED ON DOEE RETENTION REQUIREMENTS, THE MAJOR LAND DISTURBING ACTIVITY AREA IS SUBJECT TO THE RETENTION OF A 1.2—INCH STORM EVENT. THE STORMWATER RETENTION VOLUME (SWRV) REQUIRED FOR THIS SITE IS 159 CF.

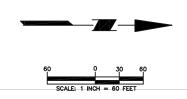
A BIORETENTION FACILITY BEST MANAGEMENT PRACTICE (BMP) WILL BE CONSTRUCTED TO RETAIN SOTRMWATER FROM THE PROPOSED ADA RAMP.

BIORETENTION CONSTRUCTION AND MAINTENANCE CHECKLIST FOUND IN THE DOCE STORMWATER MANAGEMENT GUIDEBOOK, APPENDICES L (FIGURE L.6) AND M (FIGURE M.5) SHALL BE FOLLOWED THROUGHOUT THE CONSTRUCTION AND MAINTENANCE OF THE BIORETENTION FACILITIES. THESE CHECKLISTS CAN BE FOUND ON SHEET CH502.

THE BIORETENTION FACILITY WILL PROVIDE 191 CUBIC FEET OF RETENTION VOLUME, EXCEEDING THE RETENTION VOLUME OF 159 CUBIC FEET. AN OVERFLOW RISER WILL BE INSTALLED AND A 6" STORM DRAIN OUTFALL WILL CONNECT INTO THE EXISTING 36" COMBINED SEWER MAIN ON THE SITE.









**UNION SQUARE** 

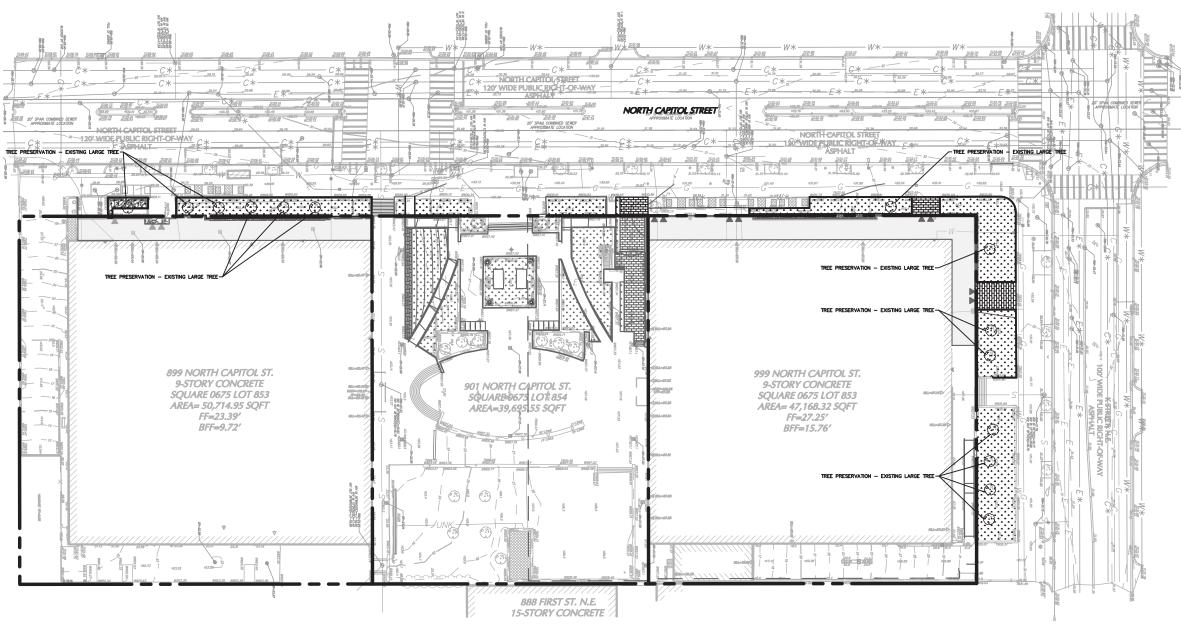
**STORMWATER MANAGEMENT PLAN** 

Drawing Title

Project No. 270098601 12 AUG 2021 Drawn By AAO Checked By

**CG104** 

Drawing No.



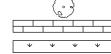
### PUBLIC SPACE STORMWATER MANAGEMENT NARRATIVE

### PUBLIC SPACE STORMWATER MANAGEMENTSUMMARY

PUBLIC RIGHT OF WAY LIMITS OF DISTURBANCE IMPERVIOUS AREA COMPACTED AREA	= 7,514 SF = 2,461 SF = 5,053 SF
SWRv	= 360 CF
TREE PRESERVATION	
14 LARGE TREES x 20 CF/TREE	= 280 CF
SWRv PROVIDED	= 280 CF (78% OF REQUIREMENT)

# STORMWATER MANAGEMENT PLAN NOTES:

EXISTING PUBLIC SPACE TREE



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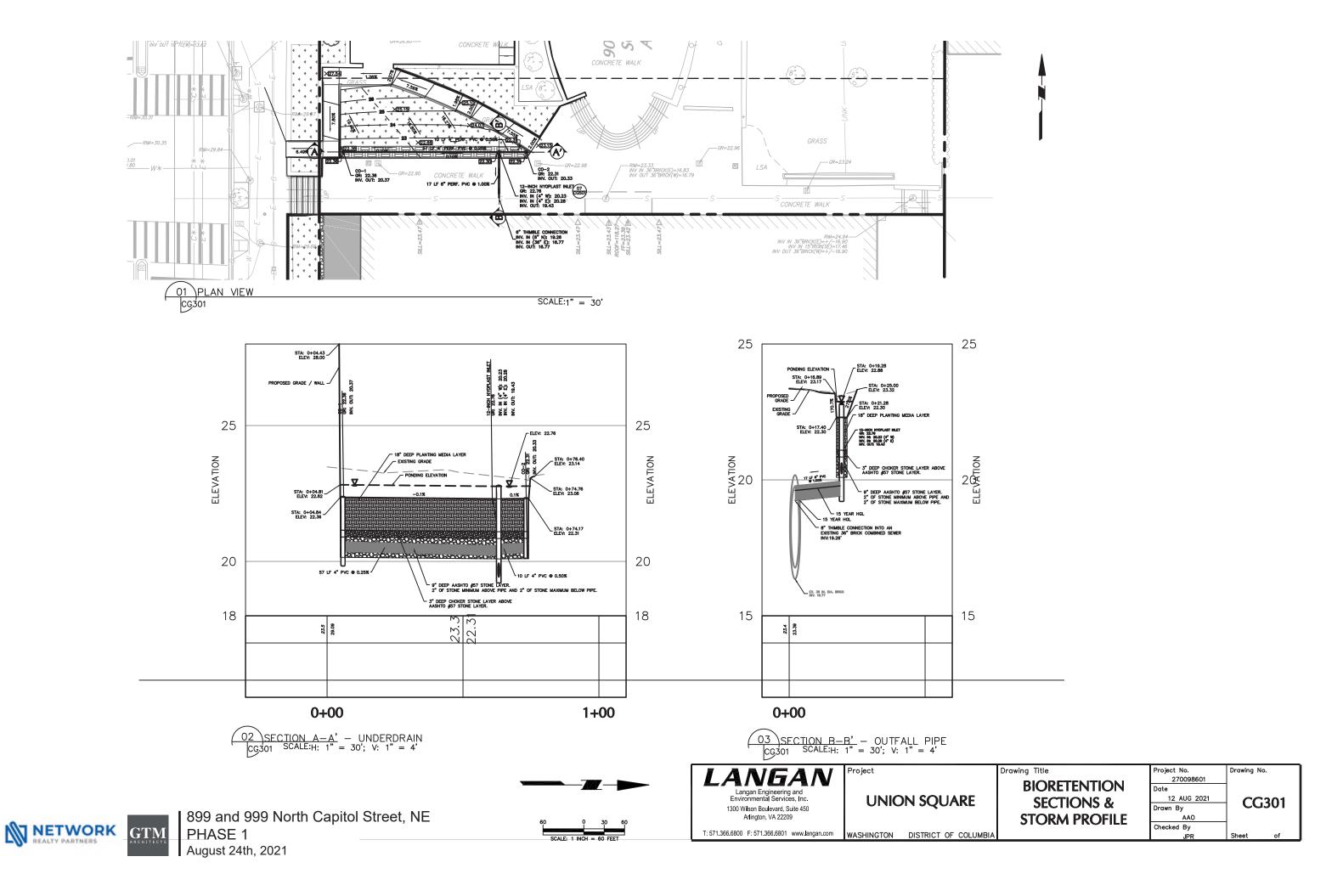
**PUBLIC SPACE STORMWATER** MANAGEMENT PLAN

Project No. Drawing No. 270098601 12 AUG 2021 CG105 Drawn By Checked By

NETWORK GTM ARCHITECTS

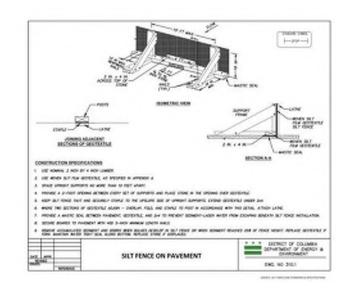
899 and 999 North Capitol Street, NE PHASE 1 August 24th, 2021

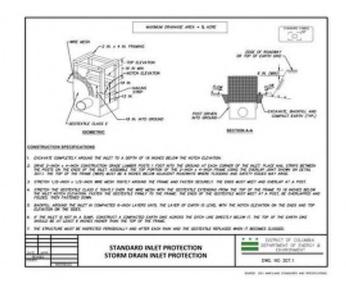
WASHINGTON DISTRICT OF COLUMBIA

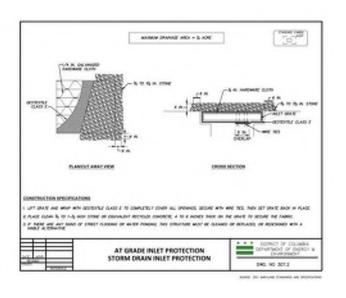


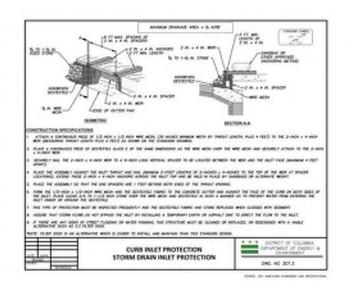


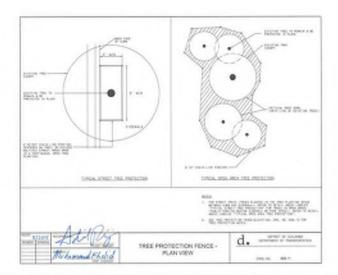


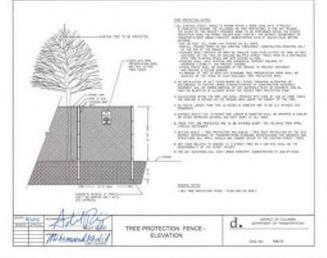














**UNION SQUARE** 

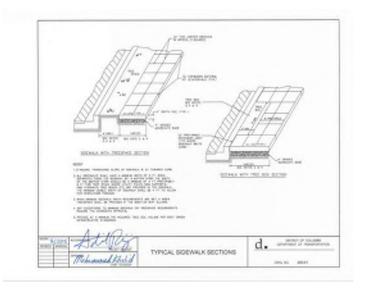
**EROSION & SEDIMENT CONTROL DETAILS** 

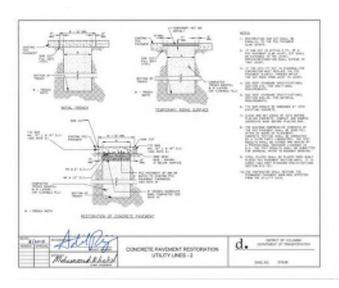
Project No. Drawing No. 270098601 12 AUG 2021 **CE501** Drawn By Checked By

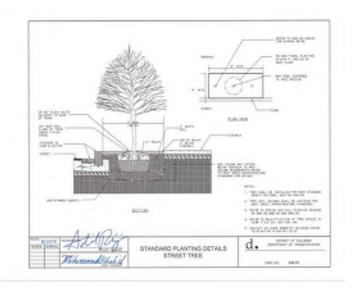


899 and 999 North Capitol Street, NE PHASE 1

August 24th, 2021









ANGAN Langan Engineering and Environmental Services, Inc. 1300 Wilson Boulevard, Suite 450 Arlington, VA 22209 T: 571.366.6800 F: 571.366.6801 www.langan.com WASHINGTON DISTRICT OF COLUMBIA

**UNION SQUARE** 

Project

**SITE DETAILS** 

Drawing Title

Project No. Drawing No. 270098601 12 AUG 2021 **CS501** Drawn By Checked By

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- Biereferdiere acus infooded in refoliate nowth road renour exists the fourth of disturbance during transmission to prevent will compare in by heavy equalities and has at design enfoltration rate.
- Interface party, if it is talknaided as long-the programs his constraint at an control of the levens of districtions, and execution of the next extract be restricted. Here inclination tests with the registeral prince or installations of the more control in the month of the distriction of the state of the sta
- Finally, it is in alterable to keep the pergened investention seem metide of the lumis of distributed, procedular of the area cannot be rectified, and infiltration mass cover-design rates control be reclosed. Overa insulation of the SWASP will be replied.
- Buretermen areas areas be clearly marked on all construction decorrects and grading plans
- Blustizarian ratio arain to de charty marked on all constitucions documents and gashing them
  Large Shart-Cortico opplications they be another assists a substantial traver at legislation through
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Sogn Jr. Presentaction Vilenting. The designer, the installer, and DGEE imposter must have a presummention manning, chacking the boundaries of the CDA and the annual inde-charation is removed why continue to original dayang. Some other contrasts may be responsible for contrasting portions of the sits, it is quite presented to find shift difference in entire packing damage and pointing developes their one product behaviorally improved efficiency in forther damage and pointing developes their one product behaviorally improved efficiency in the contrast of the cont

were recovery regis selections. Neg N: A raided language of Electry Introduction Equipment. Expression at backboos should work from the units to restorate the boundaries were to its appropriate design depth and demonstrate. Executing appropriate should have support with adequate much articlesy to sen there to sit inside the temperature of the Boundaries nears. Communion should not a culti-construction approach in language boundaries bearine, whenthe the banks in agit time 30% be 100% exquant from temperature. The second of the second of

Sup 7: Order of Manutak, if using a parametric liders, place the fabric on the ideas of the hierarctics are with a 6-inch maring on the side. If a some average layer will be used, place the appropriate depth of N. 73 since invalid claves will be used of finese on the indices, mainly layer perfected and admittaling page, page 30-in 17 since of least 2 inches above the undertaking page, and perfected and admittaling page, page 30-in 17 since of least 2 inches above the undertaking page, and

Step 8: Layered Installation of Media. Apply the media in 12 tech little until the decired by christian of the Installation area is advered. What a few days to shock the settlement and allot additional model, as model, to achieve the design devastors.

Note: The beach receipt confirming the secure of the filter media must be submitted to the ONE.

Step IV: Final Importion, Conduct the final construction importion using a qualific prolession, providing IROE is with an as-built, then laip the CPF-coordinates for each biosystemion facility, and submit them for entry into the maintenance tracking database.

- · 30%-20%-oils and sky

Note: The above preventures are board on weight rather than volume. The DDCT Groot

A PART CONTRACTOR CONT							
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50.7	4.5	15.100					
No. 31	7.5	15.106					
Sec. 14	1.6	43-86					
No. 11	137	30-42					
70.00	4.27	11-32					
No. 141	4108	19-29					
No. 176	0.043	14-56					

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NOTE: SEE SECTION 3.6.4 OF 2020 DOEE SWM MANAGEMENT GUIDEBOOK FOR BIORETENTION DESIGN CRITERIA.

03 DOEE SWM BMP MANUAL - FILTER MEDIA CRITERIA FOR BIORETENTION ICG501

SCALE:NTS

# 01 DOEE SWM BMP MANUAL — BIORETENTION SEQUENCE OF CONSTRUCTION ICG501

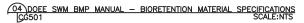
O2 DOEE SWM BMP MANUAL - BIORETENTION MAINTENANCE CRITERIA [CG501

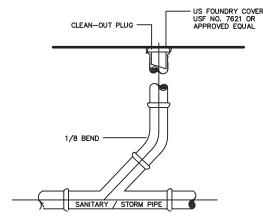
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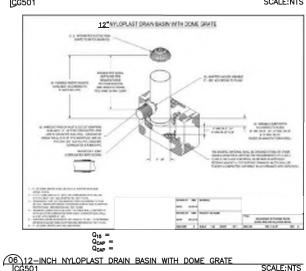
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05 DOEE SWM BMP MANUAL — BIORETENTION MAINTENANCE CRITERIA TABLE ICC501



07 CLEANOUT SCALE:NTS

899 and 999 North Capitol Street, NE

**UNION SQUARE** 

**STORMWATER MANAGEMENT DETAILS** 

Drawing Title

Project No. 270098601 Drawn Bv Checked By

12 AUG 2021 **CG501** AAO

Drawing No.

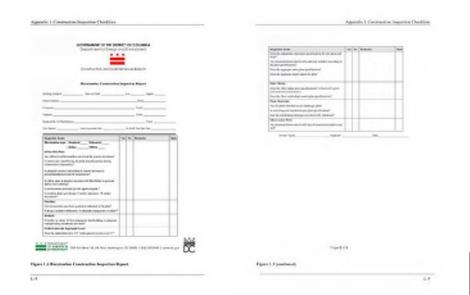
NETWORK GTM. PHASE 1 August 24th, 2021

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1300 Wilson Boulevard, Suite 450

Arlington, VA 22209

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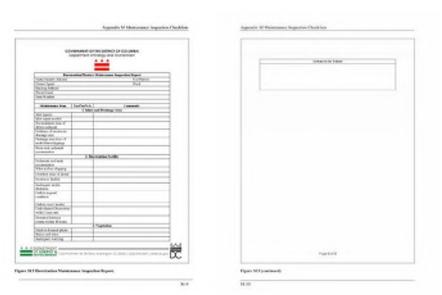
### Stormwater Management Plan Compliance Data

	Site A	ddress		9	01 North Cap	NE I	Plan number 7122								
	Storm	water M	anagement	Plan?	'es		Green Area Ratio? No - GAR does r			s not apply to this property					
	Soil Er	osion an	d Sediment	Control?	'es		1	Floodpla	n Revie	w? No					
	Type o	of Activity	,		More than one	type of a	ctivity	AWDZ?	-	Non-AWD2	:				
	Is the	entire sit	e in the CSS	57 Y	'es										
			Total Area	ı (sf) Site A	rea PRO	w		Curve Nu	mbers						
	Natur	al	0	0	0		- 1	Addit	ional De	tention Pr	ovided				
	Comp	acted	6,576	1,523	5,0	53	1	Pre-deve	lopmen	t 70	2-yea	ır storm adjı	usted CN	59	
	Imper	vious	3,459	998	2,4	51	1	Pre-proje	ct	77	15-ye	ear storm ad	ljusted CN	70	
	BMP		275	275	0						100-	ear storm a	djusted CN	73	
	Total		10,310	2,796	7,5	14									
	Regul	rements	Summary	(total is the	sum of PROV	/ and Parc	el)	F	ROW (	t³) Par	rcel (ft³)	Total (ft <sup>a</sup>	) Tota	l (Gallons)	
	SWRv							3	60	15	9	519	3,88	3	
	WQTv	,								0		0	0		
	On-sit	e retenti	on achieved	ł				0		19:	1	191	1,42	7	
	On-sit	e treatm	ent achieve	d				C		12	7	127	951		
	% of S	WRv me	t on-site					0	%	12	0%	36.75%	36.7	5%	
	SRC el	ligibility											238		
	Offv				en	n Design	4	c		D-4-			0		
					30	e Drain	age Area	Comp	nance	Data					
nage nage	Public Right of Way	Total area (square foot)	Natural (upuane feet)	Compacted (square foot)	(square feet)	tory (square fort)	Vehicular access area	Swilly Joubs Seed	WQTv (rubis fort)	Yolume retained (ruble feet)	Volume treated (rable feet)	2-year shown adjusted Curve Mumber	13-year storm adjusted Curve Number	100-year storm offunion Conve	SOA Minimu Complian
-1		2.796		1.523	998	275		159		191	127	59	70	73	N/A

 $d_{sump}$ Check for Sv<sub>infiltrate</sub> N/A Sv<sub>infitrate</sub> must be greater than or equal to Sv to ensuinfiltration within 72 hours.

05 BIORETENTION STORAGE CALCULATIONS

01 BIORETENTION CONSTRUCTION INSPECTION REPORT SCALE:NTS



02 BIORETENTION MAINTENANCE INSPECTION REPORT | CG502

318 60% of storage volume 2,470 271 | Transport | Tra

03 BIORETENTION STORAGE CALCULATIONS

Line No.	Invert Up	Invert Dn	Capac Full	Drng Area	Flow Rate	Runoff Coeff	Line Langth	Line Slope	HGL Up	HGL Dn	Line Size			
	(ft)	(10)	(cfs)	(ac)	(cfs)	(C)	(71)	(%)	(ft)	(ft)	(in)			
1	19.43	19.26	0.56	0.09	0.48	0.75	17.000	1.00	19.78	19.61	6			
Projec	t Flia: sò											Number of lines: 1	Date: 8/2/2021	

04 15-YEAR CONVEYANCE CALCULATIONS

ANGAN Langan Engineering and Environmental Services, Inc.

1300 Wilson Boulevard, Suite 450 Arlington, VA 22209

T: 571.366.6800 F: 571.366.6801 www.langan.com

**UNION SQUARE** 

WASHINGTON DISTRICT OF COLUMBIA

Project

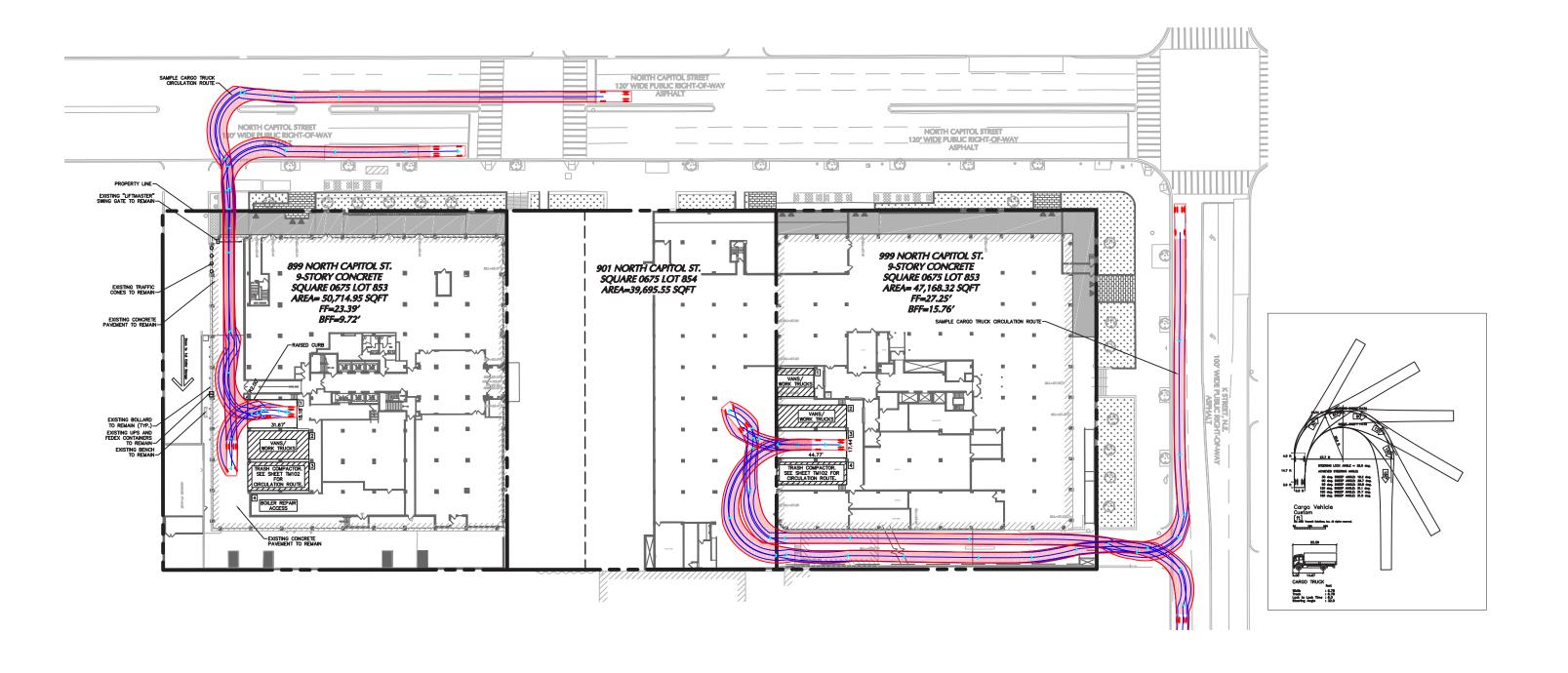
**STORMWATER MANAGEMENT CALCULATIONS** 

Drawing Title

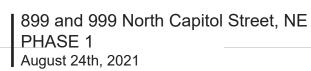
Project No. Drawing No. 270098601 12 AUG 2021 CG502 Drawn By AAO Checked By

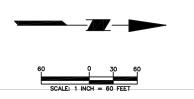
NETWORK GTM

899 and 999 North Capitol Street, NE PHASE 1 August 24th, 2021









LANGAN	Project
Langan Engineering and Environmental Services, Inc.	ш
1300 Wilson Boulevard, Suite 450 Arlington, VA 22209	

UNION SQUARE

T: 571.366.6800 F: 571.366.6801 www.langan.com WASHINGTON DISTRICT OF COLUMBIA

TRUCK TURNING
DIAGRAM
(CARGO TRUCK)

Project No. 270098601	Drawing No.
Date	
12 AUG 2021	TM101
Drawn By	IMITOT
AAO	
Checked By	
JPR	Sheet of